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**Laser-generated magnetic fields in quasi-hohlraum geometries**  
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JOHN MOODY, Lawrence Livermore National Laboratory — Laser-generated magnetic fields of 10-40 T have been produced with 100-4000 J laser drives at Omega EP and Titan. The fields are generated using the technique described by Daido et .al. [Phys. Rev. Lett. 56, 846 (1986)], which works by directing a laser through a hole in one plate to strike a second plate. Hot electrons generated in the laser-produced plasma on the second plate collect on the first plate. A strap connects the two plates allowing a current of 10s of kA to flow and generate a solenoidal magnetic field. The magnetic field is characterized using Faraday rotation, b-dot probes, and proton radiography. Further experiments to study the effect of the magnetic field on hohlraum performance are currently scheduled for Omega. This work was performed under the auspices of the United States Department of Energy by the Lawrence Livermore National Laboratory under contract No. DE-AC52-07NA-27344.

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